

# **Project Hanford Lessons Learned**

**Title:** Asbestos Regulated Area Boundaries and Controls Not Properly Established

**Date:** October 5, 2005

**Identifier:** 2005-RL-HNF-0036

## **Lessons Learned Summary:**

The use of a requirements document to implement work activities in the field should be discouraged. Appropriate procedures or work package instructions must be developed to ensure personnel are provided the necessary guidance to perform activities safely without having to interpret the meaning of the requirements document and how controls should be integrated into field-work activities.

## **Discussion of Activities:**

During the cleanup process of radioactive, asbestos contaminated debris caused by the demolition of an ancillary facility a daily pre-job briefing session was held to continue the activity. During the briefing, safety representatives identified a concern that containers used to dispose of the debris had been loaded and closed outside of the asbestos regulated area. To gather additional information regarding the activity a critique meeting was held. It was determined that an asbestos regulated area for demolition waste debris containerization activities was not properly established in accordance with applicable requirements.

## **Analysis:**

As part of a D&D cleanup and packaging process, Contaminated Area (CA) and Asbestos Regulated Area (ARA) barriers were established. The Field Work Supervisor (FWS) was the trained Asbestos Competent Person assigned to oversee the work activities. The FWS failed to recognize that debris containers should have been staged within both the CA and the ARA posted areas prior to commencing loading activities.

An event critique noted that the ERDF container loading was considered to be Class 2 asbestos work and as a consequence should have been accomplished within the ARA with full Class 2 asbestos controls in place. These controls include wearing appropriate protective equipment and asbestos monitoring activities. As part of the critique activities a barrier analysis was performed. Several significant barriers were discussed. These included the lack of experience possessed by the FWS and the D&D Workers in applying asbestos control practices to D&D activities, the Washington State Asbestos Certified (WSAC) training does not address the removal of mixed waste products (radioactive and asbestos combined), and the requirements document does not adequately address establishing ARA boundaries. During this activity, and due to their lack of experience, the FWS and Safety Representative did not properly interpret requirements in a requirements document to ensure the ARA encompassed the entire Class II Asbestos work activity.

## **Recommended Actions:**

Personnel must have the requisite knowledge and skills to perform assigned tasks. When experience is limited other controls should be considered to mitigate potential consequences until

adequate proficiency is acquired. Additional controls could include the use of more experienced personnel as mentors, more in-depth written instructions, or the use of a subject matter expert to provide pre-job briefings.

Training programs should be evaluated to determine if they adequately prepare personnel to perform their assigned tasks. This includes periodic evaluation of the training personnel receive based upon performance in the field, as well as, evaluation of the training at its delivery point.

Procedures or detailed work instructions should be provided for all non-routine work activities such as those encountered during D&D activities. The majority of D&D activities are not of a routine nature. While they appear to be similar, each has a different set of characteristics and hazards which need to be evaluated and effective controls applied to the work. Workers should be provided detailed information on controls and requirements associated with each work activity to ensure compliance and safety.

**Estimated Savings/Cost Avoidance:** Not evaluated

**Priority Descriptor:** Yellow/Caution

**Work / Function:** Conduct of Operations/ Procedure Development, Work Planning, Work Control; Decontamination and Decommissioning, Demolition; Environmental Protection/Releases; Management, Occupational Safety and Health, Radiation Protection, Training and Qualifications

**Hanford Functional Categories:** Associated Causal Factors - A3B2C05 - Situation incorrectly identified or represented resulting in wrong rule used; A4B1C01 - Management policy not well defined, understood, or enforced; A6B3C03 - Training on new work methods LTA; A4B3C08 - Job scoping did not identify special circumstances and/or conditions

**Hazard:** Personal Injury-Exposure/ Asbestos, Radioactive Material

**ISM Core Function:** Analyze Hazards, Develop and Implement Controls

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**Authorized Derivative Classifier:** NA

**Reviewing Official:** Gerald Whitney

**Keywords:** Asbestos, Contamination, Deactivation and Decommissioning (D&D), Procedures, Training, Feedback

**References:** HNF-RD-15097 *Asbestos Control - Construction Industry*